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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/712,879

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Mohamed Khalil

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EXAMINER

WONG, BLANCHE

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/712,879	<b>Applicant(s)</b> KHALIL ET AL.	
	<b>Examiner</b> BLANCHE WONG	<b>Art Unit</b> 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-7 and 16-20 have been considered but are moot in view of the new ground(s) of rejection.
2. The allowability of claims 8-15 is withdrawn because Application deleted the limitation "to and from the associated mobile node using a single home agent" in lines 19-20 which is not to overcome Examiner's previous 112, 2nd rejections and this limitation is critical to the invention. See Also para. 4 below.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 1-20** are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for wireless communication system using a single home agent, does not reasonably provide enablement for a wireless communication system comprising "the virtual private network tunnel inner address and virtual private network gateway address being sufficient for tunneling information packets to and within said virtual private network" as recited in claim 8. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

In short, Specification, p.21, para. 3 to p.24, para. 2, discloses transmitting a first information packet 505 from the CN 470 to the HA 465. The source IP address is CNIP 506 and the destination IP address is HOA 507 (home address designation of the MN 450). At the HA 465, the HA 465 examines its routing table associations to determine where to forward the information packet 505. The HA 465 appends HAIP 511 as the new source IP address and VPN-TIA 512 as the new destination IP address to the information packet 505 to form information packet 510, and then transmits the information packet 510 to the VPN-GW 460. At the VPN-GW 460, the information packet 510 is not only encrypted, but also appended IP-VPN 521 as the new source IP address and HOA 522 (IP address for the MN 450 on the VPN 480) as the new destination IP address to information packet 510 to form information packet 520. The VPN-GW 460 then transmits that information packet 520 back to HA 465. The HA 465 appends HAIP 531 as the new source IP address and CCOA 532 as the new destination IP address to information packet 520 to form information packet 530. Finally, the information packet 530 is transmitted to the MN 450. The disclosure/invention eliminates the exterior home agent as shown in Fig. 1, by transmitting information packet 520 back from VPN-GW 460 to HA 465. Therefore, the invention uses a single home agent.

First, we will start with the previously allowed claim. Previous claim 8 recites "... the addresses sufficient for tunneling information packets into, outside, and within a virtual private network to and from the associated mobile node using a single home agent." The latest version, amended claim 8 recites "... the virtual private network

tunnel inner address and virtual private network gateway address being sufficient for tunneling information packets to and within said virtual private network". Applicant tried to overcome the 112, 2nd rejection regarding "the addresses" in the previous claim 8 by clarifying the addresses to be the VPN-TIA and IP-VPN in the latest version of claim 8. Applicant also eliminated the limitation "into, outside" and "to and from the associated mobile node using a single home agent". By eliminating "to and from the associated mobile node using a single home agent", the latest version of claim 8 does not reflect the invention. Specification discloses more than VPN-TIA and IP-VPN for tunneling information packets to and within the VPN. Specification discloses tunneling information from CN to MN, that is, "into, outside, and within a VPN" as recited in the previous claim 8, and also discloses CNIP, HAIP, HOA, CCOA, etc. Therefore, the allowability of claim 8 is not only withdrawn, but the scope of enablement is being questioned here.

Claim 1 recites "... said security gateway having an inner tunnel address for routing packets within the virtual private network" in lines 7-8 and "wherein an information packet transmitted from the correspondence node is encapsulated by the home agent, said encapsulated information packet is transmitted to the security gateway using the inner tunnel address and said security gateway transmits the encapsulated information packet to the mobile node" in lines 13-16. Clearly, the recitation in claim 1 is incorrect. Specification discloses a VPN-TIA as a new destination address to the VPN-GW and does not disclose an inner tunnel address for routing packets within the VPN. (See Also Specification, p.22, para. 2, "a VPN-TIA to

use for tunneling information packets to the MN 450".) Specification further discloses the last information packet 530 is at the HA and this information packet is transmitted to the MN, and does not disclose the VPN-GW transmitting the information packet 530.

Some claim language in claim 16 is confusing. Examiner interprets claim 16 to read "... said security gateway ... being designated with a gateway address for routing information packet[s] to the virtual private network and [being designated] an inner tunnel address for routing information packets within the virtual private network; forming an information packet [by] a corresponding node on the virtual private network for transmission to the mobile node; transmitting the information packet to the security gateway using said inner tunnel address ...; encapsulating the information packet at the security gateway; and forwarding the [encapsulated] information packet to the mobile node without using an external home agent." Clearly, the recitation in claim 16 is incorrect. Specification discloses a VPN-TIA as a new destination address to the VPN-GW and does not disclose transmitting the information packet to the security gateway using said inner tunnel address. (See Also Specification, p.22, para. 2, "a VPN-TIA to use for tunneling information packets to the MN 450".) Specification further discloses more than one encapsulation. Even if Applicant chooses not to recite all the encapsulation, Specification discloses the last information packet 530 is at the HA and this information packet is transmitted to the MN. Specification does not disclose forwarding the information packet to the mobile node without using an external home agent. The fact that the method is "without using an external home agent" is because the encapsulated information packet at the security gateway, is encapsulated further

and sent back to the home agent in the VPN. Claim 16 does not provide for these steps.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1, it is unclear why "a virtual private network [have] a security gateway and a home agent" in lines 3-4 but not a corresponding node, whereas "a correspondence node [is] located on the virtual private network" in line 10. Examiner sees from e.g. Fig. 4 that the virtual private network comprises a security gateway, a home agent, and a corresponding node.

With regard to claim 8, it is unclear what is the purpose of "utilizing an information packet transmitted in a packet-based communication" in the preamble. Examiner notes that claim 8 recites a wireless communication system comprising: "a foreign network ... a virtual private network gateway ...".

With regard to claim 8, it is unclear who is "having a public home address" in line 5, whether the foreign network or the mobile node, both in line 4.

With regard to claim 16, it is unclear whether "a virtual private network" in line 4 is the same "a virtual private network" in the preamble.

With regard to claim 16, it is unclear whether "a mobile node" in line 4 is the same "a mobile node" in the preamble.

With regard to claim 16, it is unclear what is "connected to said foreign network" in line 8.

With regard to claim 16, it is unclear whether the VPN is "having an inner tunnel address for routing information packets with the VPN" in lines 11-12.

With regard to claim 16, it is unclear what is meant by "forming an information packet a correspondence node on the virtual private network" in lines 13-14, or what is being formed.

7. There is insufficient antecedent basis for this limitation in the claim.

Claim 16, line 7, "the home agent".

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLANCHE WONG whose telephone number is



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(571)272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/  
Examiner, Art Unit 2619  
June 17, 2008

/Edan Orgad/  
Supervisory Patent Examiner, Art Unit 2619